ERRATA AND ADDITIONAL INFORMATION

for: SYSTEM SOFTWARE MANUAL, Revision 1

North Star Computers, Inc.

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This is intended to both update and supplement information
contained in Revision 1 of the North Star SYSTEM SOFTWARE MANUAL.
Corrections and supplemental material are presented in the order
they would appear in the main document. Each correction is
headed by the section, chapter, and page affected by the
correction. For example, a correction which affects page 5 of
chapter L in the BASIC section would be headed as follows:

[BASIC, L-5]

Whenever additional information is included, it is positioned
near corrections which deal with similar topics. Supplementary
material is identified by the heading:

[*]

[GETTING STARTED, F-1]

    In the procedure listed which moves I/O personalization from
    an earlier version of DOS on an old diskette to a current
    version on a new diskette, the line which reads

        >MM 4000,100 5000

    is incorrect.

    If the procedure is used to transfer old I/O personalization
    from Releases 1, 2, 3, or 4 to Release 5.0 dual density DOS,
    replace the above line with the following:

        >MM 4900,100 5800

    To transfer I/O personalization between copies of the 5.0
    dual density DOS, replace the incorrect line with:

        >MM 4800,100 5800

    To transfer old I/O personalization betwen copies of any
    single density version of the DOS, replace the incorrect
    line with:

        >MM 4900,100 5900

Otherwise, follow the procedure exactly as written.

[GETTING STARTED, G-3]

Replace the incorrect procedure in item 6 with the following correct procedure:

```
+LF DOS 5000
+GO M2DOO                  GO 2A00 if single density DOS
MONITOR 5.0
>MM 200D,C 500D
>MM 2900,100 5800
{>MM 2900,100 5900 if DOS at 5000 is not Release 5.0
   dual density}
```

[DOS, B-2]

Add the following to the explanation of the GO command:

The library routines of DOS are all included in the region of DOS preceding address 2A00H. For Release 5.0 dual density DOS, command and I/O processing are handled by code from 2A00H-2CFFH. It is possible to GO to a file with a GO address in the range 2A00H-2CFFH. However, upon return or re-entry to the DOS, the DOS routines in that region will have been overwritten, and no command processing will be possible. Instead, the 5.0 dual density DOS will print this message

<div align="center">

RE-BOOT

</div>

and await an input character from the console terminal. After a system software diskette is loaded and a character is typed, the DOS will be re-booted from disk.

[DOS, E-1]

Add the following after description of DOS and before description of HDERR:

DOSERR

When a control-C is typed at the console terminal during a diskette directory listing, or when DOS is passed a file name which is syntactically incorrect, DOS branches to the JMP instruction stored at this location. If left unmodified, the DOSERR JMP transfers control back to a DOS error-handling routine. Modifying the address contained in this JMP instruction will allow a user's application program to retain control under the above named error conditions. Note that a user program which modifies the address should restore it upon return to the DOS, or DOS will fail to operate correctly.

[DOS, G-2]

The second page of the "DOS ENTRY POINTS AND FLAGS" table is incorrect. Replace it with page 6 of this errata sheet.

[*]

Note the addition of a new DOS flag, called DEN. This byte is always set after a user call to DLOOK, to either 00H or 80H, depending on whether the directory on the specified diskette is single or double density. Also, note that the density expected in a DCOM operation is specified in bit 7 of the C register when DCOM is called. If bit 7 is set, a double-density operation will be performed.

[BASIC, C-9]

Add the following to the ACTION section of the NSAVE command description:

The density of the file created is set to be the same as the density of the file directory on the diskette.

[BASIC, L-10]

Add the following to the ACTION section of the CREATE statement description:

The density of the file created is set to be the same as the density of the file directory on the diskette.

[BASIC, O-7]

On both lines 3 and 4, replace "S+24" with "S+25". Also, the line which reads

CR BASIC 50

should be

CR BASIC 52

[BASIC, O-7]

Add the following after personalization item 8 in subsection C, and before subsection D:

9. PERSONALIZING FPB-BASIC FOR DIFFERENT FLOATING POINT BOARD ADDRESSES

NOTE: SKIP this section unless you are personalizing a version of FPB-BASIC.

The North Star Hardware Floating Point Board (FPB-A) is accessed like computer memory, and has a set of addresses as does a memory board. All the FPB-A addresses have the same high byte: 239 (EFH) for the standard board. The North Star FPB-A manual tells how to change the high byte, in order to re-address the board. If you find it necessary to re-address your FPB-A, you will also have to personalize BASIC so that it will use the board at the new set of addresses. The following procedure should be done BEFORE you actually change the addresses of the board itself:

Simply determine what the decimal equivalent of the board's new high byte is, and set variable F to it. (You may find APPENDIX 4 useful in performing any necessary conversion from hexadecimal to decimal.) To illustrate, assume you wish to change the high byte from 239 (EFH) to 223 (DFH). Then type

                    F=223

When F has been assigned the decimal value of the board's new high byte, type

                  FILL S+33, F

Now, having finished all personalization, use the methods described in this DISUCSSION to save a copy of your new FPB-BASIC on diskette. Shut down the computer system and change the board's addresses. When you re-activate and re-boot the system, execute the new copy of FPB-BASIC. From now on, every time the new copy of FPB-BASIC is executed, it will "re-personalize" itself to use the FPB-A board at the new address. Older copies of FPB-BASIC, which have not been modified in the above fashion, will fail to work with the re-addressed FPB-A.

[*]

    Note that the standard FPB origin was formerly DFF0H. As of this printing, however, the new standard origin is EFF0H.

[BASIC, O-10]

    Add the following to the "CHART FOR READY-REFERENCE":

    ORG+33 (11553 or 2D21H)   [FPBADDR]
    Specifies the high order byte of the Floating Point Board addresses. This byte is present only in Hardware Floating Point versions of BASIC (FPB-BASIC).

[*]

Note that, relative to the origin of BASIC, none of the
addresses for personalization bytes have changed between
Release 4 and Release 5, but ABSOLUTE addresses have changed
from Release 4 to Release 5.0 dual density, because the
origin of BASIC under the 5.0 dual density DOS has changed
from 2A00H to 2D00H. Programs which use ABSOLUTE Release 4
personalization addresses for BASIC personalization under
program control may not work correctly under Release 5
BASIC. If so, they will have to be modified to reflect the
new personalization addresses.

```
2019                 *DOS LIBRARY ROUTINE ENTRY POINTS, ETC.
2019                 *
2019                 *THIS ADDRESS IS BRANCHED TO ON HARD DISK ERRORS
2019 C30000   HDERR JMP 0         0 IS NOT THE REAL ADDRESS
201C                 *
201C                 *THIS IS THE FILE DIRECTORY LOOKUP ROUTINE
201C                 *ACC MUST CONTAIN THE DEFAULT UNIT NUMBER (NORMALLY 1)
201C                 *HL=POINTER TO LEGAL FILE NAME IN RAM, WITH OPTIONAL DRIVE
201C                 * SPECIFICATION FOLLOWED BY EITHER A BLANK OR CARRIAGE RETURN.
201C                 *UNIT NUMBER DETERMINED FROM NAME IS ALWAYS RETURNED IN ACC.
201C                 *FAILURE IF CARRY SET. ON FAILURE, HL=FIRST FREE DISK ADDRESS
201C                 *ON SUCCESS, HL HAS A POINTER TO THE EIGHT BYTE OF A COPY
201C                 *OF THE DOS ENTRY IN RAM
201C C30000   DLOOK JMP 0         0 IS NOT THE REAL ADDRESS
201F                 *
201F                 *THIS ROUTINE WILL WRITE A DIRECTORY ENTRY BACK TO DISK
201F                 *NO ARGS ARE NEEDED. MUST FOLLOW DLOOK.
201F C30000   DWRIT JMP 0         0 IS NOT THE REAL ADDRESS
2022                 *
2022                 *THIS ROUTINE MAY BE USED TO ISSUE A DISK COMMAND
2022                 *ACC=NUMBER OF BLOCKS
2022                 *B=COMMAND (0=WRITE, 1=READ, 2=VERIFY, -1=SING INIT, -2=DBL INIT)
2022                 *C=UNIT NUMBER, BIT 7=DOUBLE DENSITY BIT
2022                 *DE=STARTING RAM ADDRESS, HL=STARTING DISK ADDRESS
2022                 *RETURN WITH CARRY SET MEANS ARGUMENTS WERE ILLEGAL
2022 C30000   DCOM  JMP 0         0 IS NOT THE REAL ADDRESS
2025                 *
2025                 *THIS ROUTINE MAY BE USED TO LIST A FILE DIRECTORY
2025                 *ACC=DISK UNIT, L=OUTPUT DEVICE NUMBER FOR LISTING
2025 C30000   LIST  JMP 0         0 IS NOT THE REAL ADDRESS
2028                 *
2028                 *THIS ADDRESS IS AN ENTRY POINT TO THE LOADED DOS
2028                 *ENTRY HERE WILL RESET THE STACK PTR, AND NOT CALL TINIT
2028 C30000   DOS   JMP 0         0 IS NOT THE REAL ADDRESS
202B                 *
202B                 *THIS NEXT BYTE IS A FLAG USED BY DOS.
202B                 *IF 0, THEN READ-AFTER-WRITE CHECK IS NOT DONE,
202B                 *IF 1, THEN READ-AFTER-WRITE CHECK IS DONE.
202B 00       RWCHK DB 0
202C                 *
202C                 *THIS ADDRESS BRANCHED TO ON CONTROL-C DURING LIST OR
202C                 *FILE NAME ERROR DURING DLOOK
202C C30000   DOSERR JMP 0         NOT REALLY 0
202F                 *
202F                 *THIS BYTE IS SET TO DENSITY AFTER DLOOK CALLS
202F                 *00H IF SINGLE DENSITY, 80H IF DOUBLE DENSITY
202F          DEN DS 1
2030                 *
2030                 *AUTO START FLAG. NORMALLY 1 - SET TO 0 FOR TURNKEY STARTUP
2030 01       AUTOS DB 1
2031                 *
2031                 *NEXT TWO BYTES IDENTIFY THE LOCATION OF THE DOS INPUT BUFFER
2031 0000        DW 0            NOT REALLY 0
2033                 *
2033                 *NEXT BYTE SPECIFIES VIDEO TERMINAL LINE COUNT. IF 0, THEN
2033                 *NO PAGING OF THE LIST COMMAND WILL BE DONE
2033 18       PAGES DB 24        INITIALIZED FOR 24 LINE TERMINAL
2034                 *
```